

Fig. 1

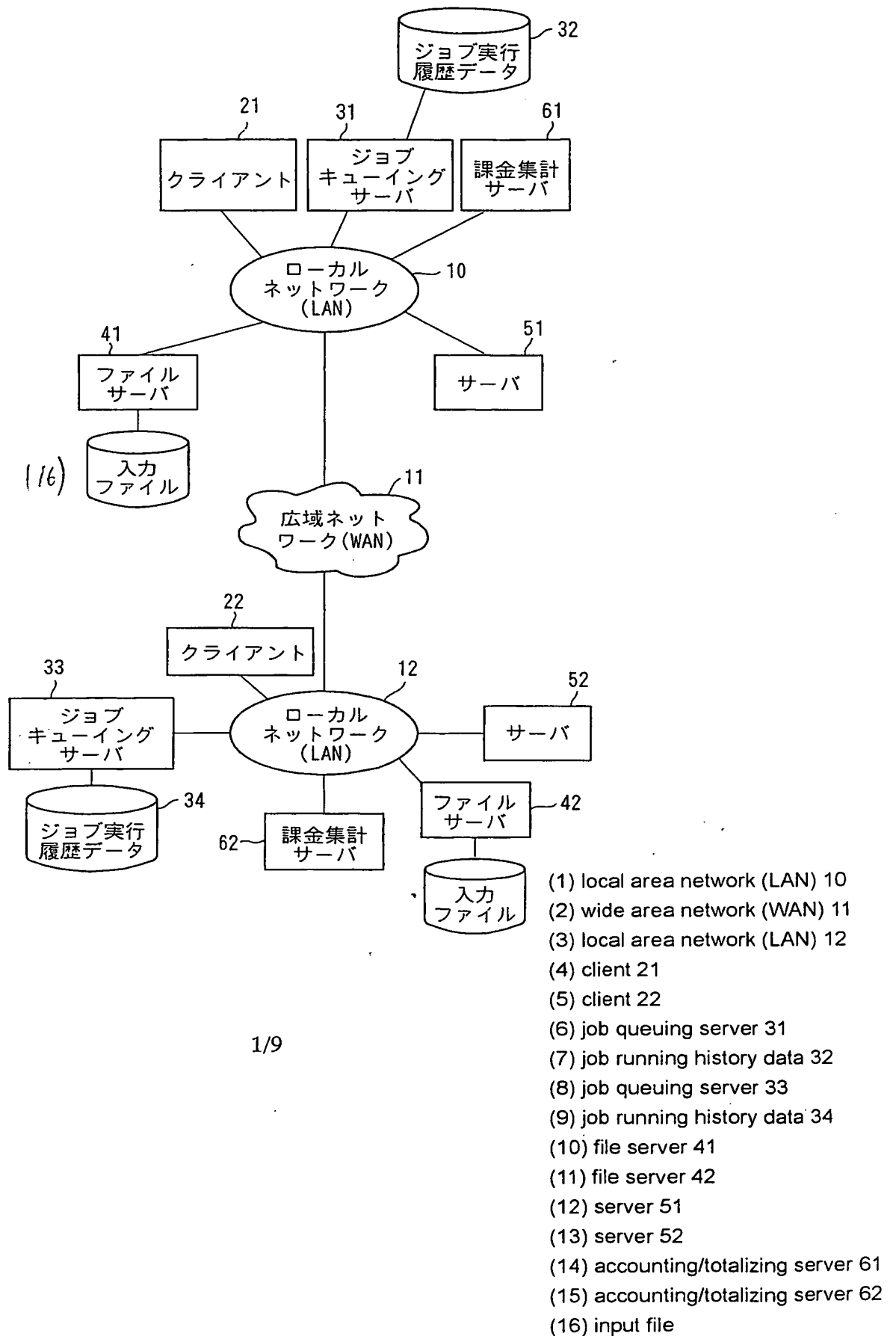
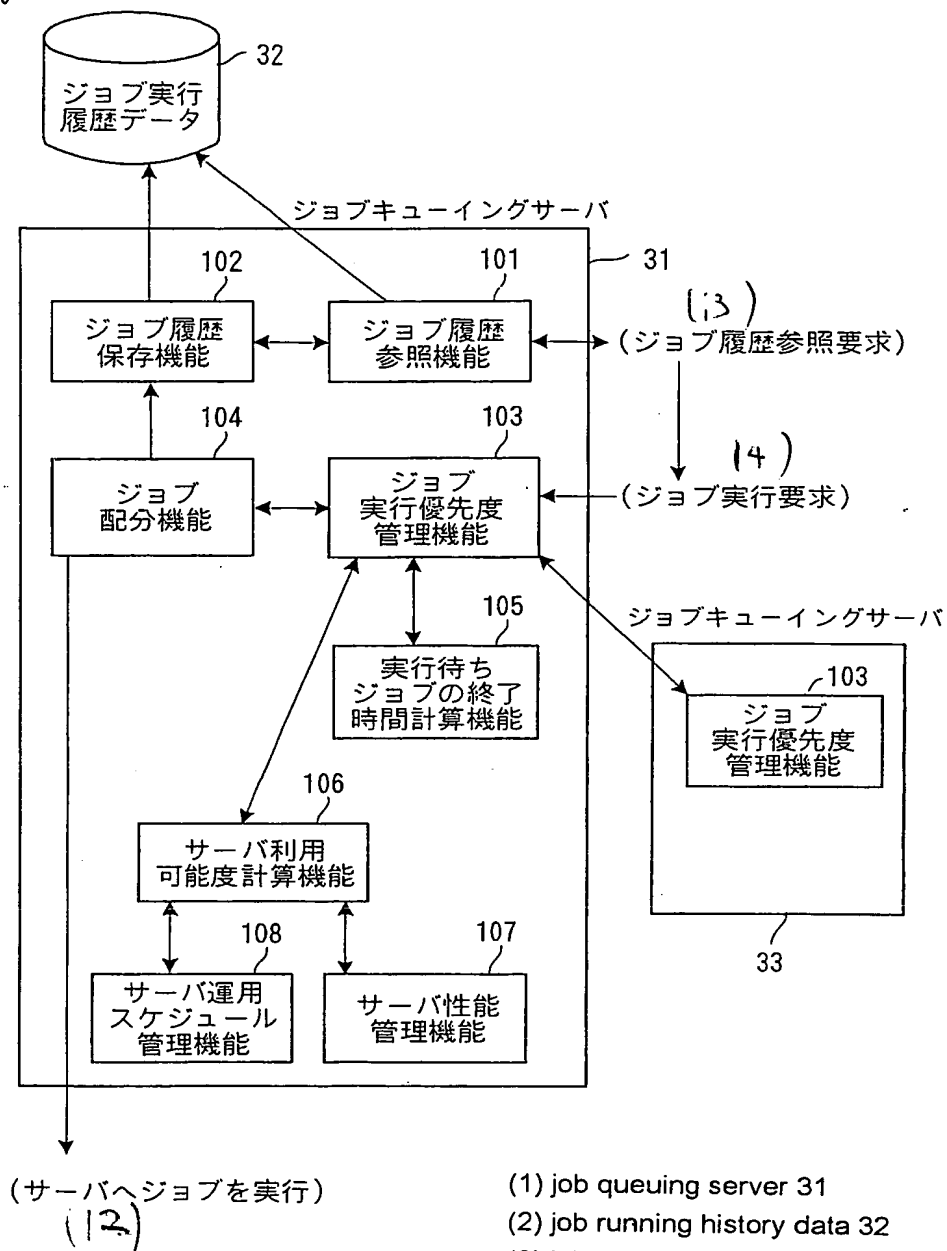


Fig. 2



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- (1) job queuing server 31
- (2) job running history data 32
- (3) job queuing server 33
- (4) job history referring function 101
- (5) job history saving function 102
- (6) job running priority managing function 103
- (7) job allocating function 104
- (8) wait-for-execution job finishing time computing function 105
- (9) server availability computing function 106
- (10) server performance managing function 107
- (11) server operational schedule managing function 108
- (12) (to the server to execute the job)
- (13) (job history referring request)
- (14) (job executing request)

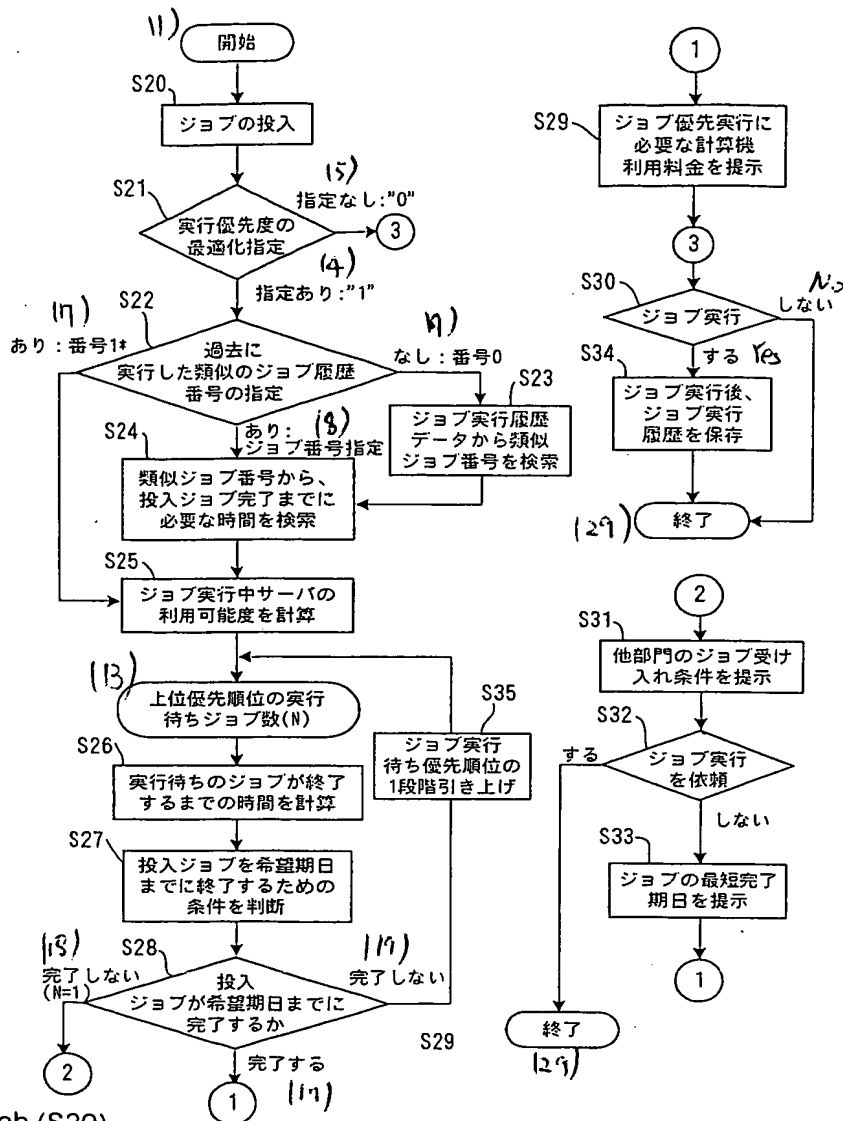
Fig.3

| | |
|--------------|-------------------|
| (1) | (2) |
| 単位時間あたりの使用料金 | 実行待ちジョブが終了するまでの時間 |

(1) charge for use per unit time

(2) time required until the wait-for-execution job is ended

Fig 4



- (1) start
- (2) give a job (S20)
- (3) Is the optimization of the priority in execution pointed? (S21)
- (4) pointed: "1"
- (5) not pointed: "0"
- (6) Is the similar job history number executed in the past pointed? (S22)
- (7) Yes: Number 1*
- (8) Yes: Job number pointed
- (9) No: Number 0
- (10) search the similar job number from job running history data (S23)
- (11) search a time required until the given job is completed, from similar job numbers (S24)
- (12) compute an availability of the job running server (S25)
- (13) the number (N) of wait-for-execution jobs having the higher priority
- (14) compute a time required until the wait-for-execution job is ended (S26)
- (15) decide conditions needed to end the given job up to a desired date (S27)
- (16) Can the given job be completed up to the desired date? (S28)
- (17) completed
- (18) not completed (N=1)
- (19) not completed
- (20) offer the charge for using the computer needed for the job preferential execution (S29)

(21) Is the job to be executed? (S30)

(22) Yes

(23) No

(24) save the job running history after the job execution (S34)

(25) offer job accepting conditions to other departments (S31)

(26) Is the job execution to be requested? (S32)

(27) offer the shortest completing date of the job (S33)

(28) pull up the priority in the wait-for-execution job by one level (S35)

(29) end

Fig.5

| | | | | | |
|------------|-----------|-------|------------|-----------|------|
| (1) | | | | | |
| 実行するジョブの種類 | ジョブ完了希望期日 | 実行優先度 | 類似ジョブの実行番号 | 仕事単位グループ名 | コメント |
| | (2) | (3) | (4) | (5) | (6) |

- (1) type of executed job
- (2) desired completion date of the job
- (3) priority in execution
- (4) executed number of similar jobs
- (5) group name in unit of works
- (6) comments

Fig.6

| | | | | | | |
|----------|--|--------|------|--|-----|--|
| (1) | | | (2) | | (3) | |
| ジョブの実行番号 | | ジョブ依頼日 | コメント | | | |

FIG.6:

- (1) execution number of job
- (2) job assigned day
- (3) comments

Fig. 7 11) 12) 13) 14)

| サーバ名 | 計算機能力 | ジョブ終了までに必要な時間 | ジョブ実行の経過時間 |
|------|-------|---------------|------------|
|------|-------|---------------|------------|

- (1) server name
- (2) computer capacity
- (3) time required until the job is finished
- (4) lapsed time after the job execution is started

Fig. 8 11) 12) 13) 14) 15) 16) 17)

| ジョブ番号 | ジョブの種類 | ジョブ完了希望期日 | ジョブ消費能力 | 仕事単位グループ名 | コメント | 単位時間当たりの計算機利用料金 |
|-------|--------|-----------|---------|-----------|------|-----------------|
|-------|--------|-----------|---------|-----------|------|-----------------|

- (1) number of job
- (2) type of job
- (3) desired completion date of the job
- (4) job consuming power
- (5) group name in unit of works
- (6) comments
- (7) charge for using the computer per unit time

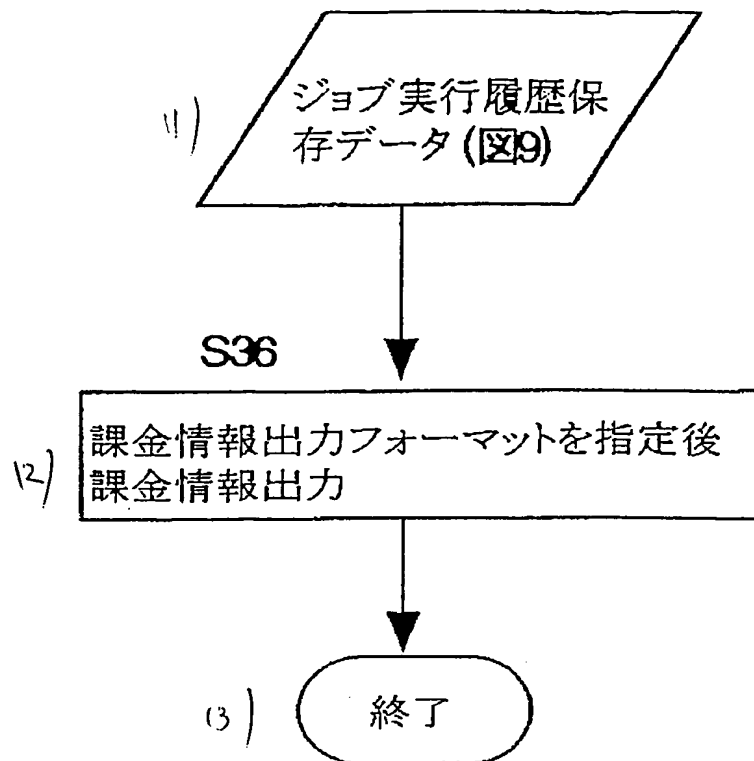
FIG. 9

| | | | | | | | |
|-------|------------|-----------|------|---------|---------|-----------------|---------|
| 11) | 12) | 13) | 14) | 15) | 16) | 17) | 18) |
| ジョブ番号 | 実行するジョブの種類 | 仕事単位グループ名 | コメント | ジョブ消費能力 | ジョブ実行時間 | 単位時間当たりの計算機利用料金 | 計算機グループ |

FIG. 9:

- (1) number of job
- (2) type of job to be executed
- (3) group name in unit of works
- (4) comments
- (5) job consuming power
- (6) job running time
- (7) charge for using the computer per unit time
- (8) computer group

Fig. 10



(1) job running history saving data (FIG.9)

(2) output accounting information after an accounting information output format is pointed (S36)

(3) end

21

| (1) | | (2) | (3) | (4) |
|--------------|------------|------------|---------|------------|
| ジョブ番号 | 実行するジョブの種類 | CPU時間(h) | 計算機利用費用 | |
| 5(ジョブ番号) 116 | 1(ジョブの種類) | 17(CPU時間) | 18 | 18(利用料金) |
| 5(ジョブ番号) 15 | 1(ジョブの種類) | 17(CPU時間) | 18 | 18(利用料金) |
| 5(ジョブ番号) 116 | 1(ジョブの種類) | 17(CPU時間) | 18 | 18(利用料金) |
| 合計 (total) | | 9(合計CPU時間) | 18 | 18(合計利用料金) |

(1) number of job

(2) type of job to be executed

(3) CPU time (h)

(4) charge for using the computer

(5) (number of job)

(6) (type of job)

(7) (CPU time)

(8) (charge for use)

(9) (total CPU time)

(10) (total charge for use)